

Friday, November 20, 2020 1:00 P.M. – 3:00 P.M. (Virtual via Google Meet) Meeting Minutes

Welcome and Introductions

Dr. Perman gave opening remarks and reviewed the ground rules of a virtual meeting. He called the meeting to order and carried out roll call to confirm attendance. Dr. Perman introduced new Board members, Rebecca "Becky" Fisher and Jesse Christopher.

Board Members in Attendance

- Jay Perman, MD, Chancellor University System Maryland [Chair]
- Christopher P. Austin, M.D., Director, National Center for Advancing Translational Sciences U.S. National Institutes of Health
- Richard A. Bendis, President and CEO BioHealth Innovation Inc.
- Jarrod Borkat, Vice President Corporate Strategy Emergent Biosolutions
- Jesse Christopher, MBA, CEO Longeviti Neuro Solutions
- Rebecca Fisher, Ph.D., Deputy Director, Congressionally Directed Medical Research Programs U.S. Army Medical Research and Development Command
- William Hearl, PhD, President and CEO Immunomic Therapeutics Inc.
- Laurie E. Locascio, Ph.D., Vice President for Research University of Maryland, College Park, University of Maryland, Baltimore
- Theodore J. Olsen, Principle Neowise, LLC
- Wendy Perrow, MBA, CEO Oncogenomics, LLC
- Sanjay K. Rai, Ph.D., Chief Academic Officer and Senior Vice President for Academic Affairs Montgomery College
- Martin Rosendale, CEO Maryland Technology Council
- Brian Stamper, Director of Manufacturing Kite Pharma
- Joseph F. Sanchez, Ph.D., MBA, Director, North America R&D Science Engagement AstraZeneca
- Bob Storey, Principal The MVR Company
- Frank F. Weichold, M.D., Ph.D., Director, Critical Path and Regulatory Science Initiatives, Office of the Commissioner U.S. Food and Drug Administration
- Kelly M. Schulz, Secretary Maryland Department of Commerce (Ex-Officio)
- Arti Santhanam, Executive Director Maryland Innovation Initiative Program, TEDCO (Ex-Officio)

Board Member not in Attendance

• Christy Wyskiel, Senior Advisor to the President and Head of Johns Hopkins Technology Ventures – Johns Hopkins University

Department of Commerce Attendees

- Ernesto Chanona, PhD Senior Manager, BioHealth & Life Sciences
- Ulyana Desiderio, PhD Director, BioHealth & Life Sciences
- Heather Gramm Senior Director, Strategic Industries & Entrepreneurship
- Connie Page Administrative Associate
- Signe Pringle Assistant Secretary Division of Business and Industry Sector Development
- Tamar Osterman, Senior Business Development Representative, Carroll and Frederick Counties

General Public Attendees

- Sherri Giorgio, Gilead
- Emily R. Haskel, Maryland Department of Legislative Services
- Pamela Metz Kasemeyer, Schwartz, Metz & Wise, P.A.
- Alex Keown, BioBuzz
- Troy LeMaile-Stoval, TEDCO
- J. Thomas Sadowski, University System of Maryland
- Adam Van Bavel, BioBuzz

Dr. Perman reminded everyone about the Board's charge to maintain Maryland's preeminence in the life sciences industry and gave an overview of the meeting's agenda.

Review and Acceptance of September 9, 2020 Meeting Minutes

Dr. Perman asked for feedback on the minutes of the September 9, 2020 LSAB meeting. Hearing none, he asked for a motion to approve the minutes which was made by Mr. Olsen and seconded by Drs. Rai and Locascio. The meeting minutes were approved unanimously.

Secretary of Commerce Update

Secretary Schulz updated the Board on the new restrictions in Maryland due to the rise of COVID-19 cases: bars and restaurants must close from 10 p.m. to 6 a.m. except for takeout and delivery; reduced capacity for retail establishments and religious facilities to 50%; reduced capacity for sporting events. The Governor is also prohibiting visitation at hospitals and allowing hospitals that are near or at capacity to move patients to other facilities to better manage the surge. There is also restricted visitation at nursing homes as well as additional requirements for more testing for staff and residents at nursing homes.

The Secretary updated the Board on Maryland jobs and the economy. Maryland added over 10,000 jobs in October, but there is a long recovery road ahead. She noted that one of the fastest growing industries in the state is the Maryland's life sciences and healthcare industries. She commented on exciting news about effectiveness of Moderna and Pfizer vaccines and thanked the Maryland life sciences industry for their contributions to fighting the pandemic.

Governor Hogan announced last month that he is allocating another \$250M into Maryland's COVID-19 relief efforts; this doubles the state's commitment to half a billion dollars. These funds are broken down in very specific ways, which include new sources of funding for businesses as well as more funding to help businesses who have already applied to some of Commerce's programs. This includes \$50M for Commerce's Small Business COVID-19 Emergency Relief Grant Fund.

The new sources include \$50 million in direct relief for restaurants in Maryland. Commerce will be allocating those funds to the counties and Baltimore City so they can disburse the grants to their businesses. Commerce is also providing \$2M to local Destination Marketing Organizations so they can support tourism and promote local restaurants, attractions, and shops. The Maryland State Arts Council has another \$3M to distribute and is accepting applications from arts organizations, independent artists, and county arts agencies who have experienced losses due to canceled events and operations. Finally, the Governor has set aside \$100M as an Emergency Rapid Response Fund for Small Businesses; this will allow the state to deploy these funds quickly in the future should the pandemic create additional need around the state.

Finally, Secretary Schulz updated the Board on the Innovation Uncovered initiative which aimed to identify the most innovative startups and entrepreneurs. Commerce received more than 125 nominations from around the state, and Governor Hogan announced final list of the "Maryland Future 20" this week. The finalists were selected based on a variety of factors, including innovation, future growth potential, the company's Maryland story, and "wow" factor. Among the Maryland Future 20 eight are life sciences companies, including: Aidar Health (Baltimore City), Clene Nanomedicine (Cecil County), pathOtrak (Prince George's County), Relavo (Baltimore City), Sisu Global Health (Baltimore City), and Theradaptive, Inc (Frederick County).

TEDCO Updates

Troy LeMaile-Stoval spoke to the Board about TEDCO's vision. TEDCO believes that there is a need to rethink, restart and re-engineer this economy to be more inclusive and more expansive. Thirteen companies out of "Maryland Future 20" are TEDCO portfolio companies and many of them came from the Maryland Innovation Initiative (MII) program. TEDCO believes companies like this will contribute not only to Maryland's recovery but also ensure that that the state thrives and leads in innovation. Our ecosystem must be the engine that drives this process. TEDCO's goals include ensuring that the ecosystem is inclusive; connecting the right individuals and the right companies; and encouraging everyone to participate in this innovation culture.

Dr. Arti Santhanam presented the most recent MII annual report that can be found on TEDCO's website. The initiative was created as a partnership between the state of Maryland and five Maryland academic research institutions. It is designed to accelerate promising technologies with significant commercial potential and leverage each institution's strengths. Up to date, \$39M was invested, 252 projects were de-risked, 102 start-up companies were created and supported, seven companies exited, and over \$532M in follow-on funding was secured. The

economic development impact can be measured in 120 created jobs with \$103K average salary and \$10M generated revenue.

Opportunities to Support Ecosystem Connectivity

Wendy Perrow gave a short presentation on resources available to entrepreneurs and shared her own experiences in successfully raising funds in the local ecosystem. She covered the following resources:

- TEDCO (MII, Rural Business Innovation Initiative, Builder Fund, Seed Fund, Maryland Venture Fund)
- *Maryland Momentum Fund* (Invests in pre- to late-seed stage companies affiliated with University System of Maryland (USM)'s 12 institutions across the state. Aims to accelerate the success of USM start-ups & provide capital bridge to larger financings)
- BioHealth Capital Region Investor Forum (Largest regional investment meeting for investors and start-ups in Maryland)
- *Blu Venture Investors* (Angel and early-stage venture investing in the DC area. Seed to Series A investments)
- *Epidarex Capital* (Funds transformative life science opportunities in emerging and underventured research hubs within the U.S. and the UK. Partners with leading universities and research institutions to provide capital for the most innovative ideas)
- *NEA* (Funds biotech, healthcare services/IT, medical devices. Seed, Series A, B, C investments)

In the ensuing discussion, BARDA Ventures was mentioned as well as the new Johnson and Johnson Innovations – JLABS @ Washington, DC as important local resources.

BioHealth Capital Region and Connected DMV Updates

Rich Bendis gave a short update on BioHealth Capital Region, which is ranked #4 the U.S. by JLL and Milken Institute's State Technology and Science Index (based on NIH funding, Venture Capital funding, patents, lab space, and jobs). Maryland companies account for four of the top eight recipients of Operation Warp Speed funding and have received billions from BARDA's COVID-19 Medical Countermeasure portfolio. In 2019, Maryland has received a record \$1.3 billion in NIH funding from 2,320 awards. Venture capital and grant funding has grown six times since 2016, setting a record in 2020 with two months remaining.

Marty Rosendale introduced Connected DMV as a non-profit 501(c)(3) organization that spun out of Greater Washington Board of Trade. The organization is preparing several initiatives that will support the DMV region. One of such initiatives is a proposed Global Pandemic Prevention and Biodefense Center to predict future pandemics and prevent the human and economic cost. Greater Washington is the most strategic location to serve as the world's epicenter for pandemic prevention with its more than 70 federal labs, 800 life sciences companies, the FDA, NIH/NIAID, ASPR/BARDA, DARPA, and other critical assets. It is in proximity to policy makers, government officials, and more than 175 world-wide embassies and diplomatic missions.

Comprehensive preparedness demands a public-private-academia approach. The Center will be advancing focused initiatives through an integrated model to: 1) integrate and coordinate ongoing functions across the pandemic prevention value chain; 2) originate, enable, and facilitate key initiatives that advance pandemic preparedness – initially launching AHEAD100; 3) collaborate across Federal, state, local governments, industry, academia, civil society, and the diplomatic community; and 4) constitute a public-private structure to complement and support the missions of NIH/NIAID, ASPR/BARDA, DARPA, etc. AHEAD100 is a targeted program that seeks to develop best-in-class neutralizing human monoclonal antibody solutions for the top 100 most likely causes of pandemics. The Center is currently in the strategy phase and is looking for strategic partnerships.

LSAB-MTC Workforce Development Task Force Update and Next Steps

Dr. Joe Sanchez and Brian Stamper introduced the charter of the Workforce Development Task Force. It is a joint effort between the LSAB and the Maryland Technology Council (MTC) that aims to address the workforce needs of a rapidly growing Maryland life sciences cluster. The task force's goal is to provide a forum for frank conversations among industry and institutions of higher education about demand and supply of talent for the foreseeable future. This open dialog will help identify needs, manage expectations, and clarify the roles and responsibilities of each stakeholder. This effort will strengthen partnerships across the Maryland life sciences cluster and can serve as a pilot for other industries. The objective is to support a thriving workforce to promote the growth of Maryland's life sciences sector. Governance oversight provided by the LSAB; task force co-chairs will provide periodic updates and request input at the Board's meetings.

The task force had its first introductory meeting on November 5, 2020 to set goals and expectations. The group is currently collecting and analyzing supply and demand data through email, phone interviews and LinkedIn discussion board. Core members of the team are Dr. Sanchez and Mr. Stamper (co-Chairs) as well as Dr. Desiderio (LSAB/Commerce) and Michelle Ferrone (MTC). The group plans to identify the challenges by early next year and begin working on a strategy to develop solutions in the spring. There was overwhelming support for this effort from the Board. Jesse Christopher and Dr. Becky Fisher volunteered to be part of the task force. Dr. Fisher also shared an additional workforce development resource to consider, the Army Educational Outreach Program.

Closing Remarks

Dr. Perman thanked everyone for attending and actively participating in the meeting. Mr. Rosendale was recognized for stepping in at the last minute to discuss the Global Pandemic Prevention and Biodefense Center. The Board's next virtual meeting will be scheduled early next year. If members wish to submit items for the next meeting's agenda, they should send them to Dr. Desiderio. Dr. Perman adjourned the meeting at 2:50 p.m.